

# Quaboag Innovation STEM Early College High School Program

---

January 30, 2011

## **Table of Contents**

Cover Page	1
Table of Contents	2
Information Sheet	3
Certification Statement	4
Executive Summary	5
Public Statement	7
I. Mission, Vision Statement, Statement of Need, and Proposed Partners	8
A. Mission Statement	8
B. Vision Statement	8
C. Statement of Need	8
D. Primary and Proposed Partnerships	15
II. How will autonomy and flexibility be used to improve school performance and student achievement?	15
a. Curriculum and Instruction	16
b. Assessment	17
c. Schedule and Calendar	18
d. Staffing	18
e. Professional Development	19
f. Governance	19
III. Capacity of Applicant Group	21
IV. Measurable Annual Goals	22
V. Proposed Timetable for Development and Establishment of Innovation School	23
VI. Attachments	24
a. Sample Assessment Template	25
b. Coursed descriptions	27
VII. Required Attachments	28
a. Attachment A: Innovation School Approval Calendar	29
b. Attachment B: Applicant Group Statement of Commitment	31
c. Attachment C: District Improvement Plan	37
d. Attachment D: Resumes of Applicant Group	50
e. Addendum –Sample Budget	51
VIII. Endnotes	53

## **Innovation School Information Sheet**

*This sheet must be included in all prospectus submissions.*

**Proposed Innovation School Name:**

Quaboag Innovation STEM Early College High School

**Full/Partial Conversion or New:** Conversion

**Proposed School Address (if known):** 284 Old West Brookfield Road, Warren, MA 01083

**Primary Contact Name:** Superintendent Brett Kustigian

**Primary Contact Phone Number(s) :** 413-436-5991 ext 1003

**Primary Contact Fax Number(s) :** 413-436-9738

**Primary Contact Email Address:** bkustigian@quaboagsd.org

**If conversion:**

**Existing School Name:**

Quaboag Regional Middle High School

**Existing School Address:** 284 Old West Brookfield Road, Warren, MA 01083

**Proposed Innovation School opening school year:** 2010-2011 2011-2012

**Proposed duration of innovation plan (up to five years):** - 3 years - 4 years - 5 years

**Projected enrollment**

School Year	Grade Levels	Total Student Enrollment	Total number of Staff
First Year	11,12	30	2
Second Year	10, 11,12	TBD	TBD
Third Year	10, 11,12	TBD	TBD
Fourth Year	10, 11,12	TBD	TBD
Fifth Year	10, 11,12	TBD	TBD
At Full Enrollment	10, 11,12	TBD	TBD

**Will this school serve students from multiple districts?** - Yes - No

**If yes, list the towns/cities in the proposed regions.**

_____ Warren _____	_____ Holland _____ Ware _____	_____ Brimfield _____
_____ West Brookfield _____	_____ Wales _____	_____ Brookfield _____
_____ Sturbridge _____	_____ Monson _____	_____ Palmer _____

**If yes, list the school districts (including regional school districts) in the proposed region.  
(Use additional sheets if necessary):**

Quabbin Regional, Tantasqua Regional, Quaboag Regional, Ware, Monson, Palmer, Pathfinder  
Regional Vocational High School, North Brookfield, East Brookfield, Brookfield

## **Innovation School Prospectus Certification Statement**

**Proposed Innovation School Name:** Quaboag Innovation STEM Early  
College High School

**Proposed City/Town Location:** Warren, Massachusetts, 01083

I hereby certify that the information submitted in this prospectus is true to the best of my  
knowledge and belief.

**Signature of Authorized Person** \_\_\_\_\_ **Date** \_\_\_\_\_

### **Authorized Person Information**

**Print/Type Name:** Superintendent Brett Kustigian

**Address:** 284 Old West Brookfield Road, Warren, MA  
01083

**Phone Number:** 413-436-5991 Ext 1003

**Fax Number:** 413-436-9738

**Email Address:** bkustigian@quaboagrsd.org

## **Executive Summary**

Although the mission statement and vision for the Quaboag Regional School District will not change, this prospectus suggests a new vision for the Quaboag Innovation STEM Early College High School program. The district mission statement, formed only 1.5 years ago, has been a driving force for school improvement. The mission of the Quaboag Regional School District is to form a partnership with parents and the community to prepare our diverse population of students to become lifelong learners in a nurturing, safe environment with high expectations so they will become responsible, productive citizens in an ever changing global society.

### **Mission**

*The mission of the Quaboag Innovation STEM Early College High School program is to provide a highly supportive and academically challenging learning environment for students in the STEM disciplines to enable them to graduate prepared for college and able to compete globally in careers related to science, technology, engineering, and mathematics.*



As stated above, the vision for the Quaboag Regional School District will not change. The Quaboag Regional School District vision seeks to provide a safe, supportive, and challenging learning environment in which students may achieve academic success and personal growth. Our proposed vision for the new Innovation STEM Early College High School simply defines a focus for a 21<sup>st</sup> century learning environment.

### **Vision**

*The proposed vision for the new Innovation STEM Early College High School is to provide a safe, supportive, and a challenging, college-level learning environment focused on science, technology, engineering, and mathematics (STEM).*

Over the past ten years there have been community tragedies, struggles within school administration, and at times mass exodus of students from the High School. These issues have affected the perception of the school system and have effects on performance and engagement, illustrated by dips in MCAS scores and enrollment figures.

The increase in poverty and the decrease in enrollment (a steady decline over the past 15 years), and decrease in student achievement (as indicated by MCAS scores), moved the applicant group to propose an Innovation School. Creating an innovation school would not only bolster moral and foster excellence in achievement for the students, but it would revitalize the community with direction, “real-world” relevance, and opportunities for community involvement.

The applicant group consists of strong administrators and former teachers, a special education professional, a business manager, a technology specialist, and an experienced college education outreach and program development department head. We are confident that as a group we will make the Innovation Early College High School a success. Though backgrounds vary, we all share the same commitment to excellence and innovation in education. The ability to embrace and pursue change, as a group, makes us a strong team for this enterprising project. As a district all of our decisions are made in the best interests of the students.

## **Public Statement**

The Quaboag Regional District Administration created this proposal with support from the Quaboag Education Association, School Committee, High School Principals, and Holyoke Community College. The autonomies will allow our community to design a school focused on college readiness.

### **Key Elements**

- Increase STEM (science, technology, engineering, and math) curriculum to prepare students with 21<sup>st</sup> century skills.
- Collaborate with Holyoke Community College to offer college level courses
- Integrate intelligent technology use in every classroom.
- Implement the Schools Interoperability Framework to improve data-use and inform instruction.

The Quaboag Innovation STEM Early College High School will be implemented for 11<sup>th</sup> and 12<sup>th</sup> graders starting fall 2011 and will be located on the Quaboag Regional campus.

## **1. Innovation School Mission, Vision, and Statement of Need**

### **A. Mission**

*The mission of the Quaboag Innovation STEM Early College High School program is to provide a highly supportive and academically challenging learning environment for students in the STEM disciplines to enable them to graduate prepared for college and to compete globally in careers related to science, technology, engineering, and mathematics.*

### **B. Vision**

*The proposed vision for the new Innovation STEM Early College High School is to provide a safe, supportive, and a challenging, college-level learning environment focused on science, technology, engineering, and mathematics (STEM).*

### **C. Statement of Need**

#### **A Difficult Decade** **External and Internal Needs**

The recession has hit our families in the Quaboag district particularly hard. Nearly fifty percent of our students now qualify for free and reduced lunch. Our current drop-out rate is above state average, and while enrollment to our two elementary schools has increased slightly, our enrollment to our high school has decreased.

Over the past ten years there have been community tragedies, struggles within school administration, and at times mass exodus of students from the High School. These issues have affected the perception of the school system and have effects on performance and engagement, illustrated by dips in MCAS scores and enrollment figures.

The aforementioned increase in poverty and decreases in enrollment and student achievement (as indicated by MCAS scores), moved the applicant group to propose an Innovation School. Creating an innovation school would not only bolster moral and foster excellence in achievement for the students, but it would revitalize the community with direction, “real-world” relevance, and opportunities for community involvement.

The autonomy and flexibility provided by an Innovation School is necessary in order to carry out the objectives of the school. Curriculum and instruction autonomies will allow a STEM-focus. Providing a STEM-focus will allow us to attract and retain students, as well as, prepare them for



21<sup>st</sup> century skills, college, and careers. Autonomy in school scheduling would allow for longer blocks in STEM classes or a restructured schedule which meet the needs of the students attending the ECHS. Staffing and policy autonomies will allow faculty from Holyoke Community College to teach on the Quaboag Regional campus and allow students to earn up to 32 college credits and high school credit simultaneously. Quaboag Regional teachers have already expressed interest in pursuing articulation agreements with HCC that would allow current high school classes to count as college credit.

The Innovation Early College High School will be open to students who want to get an early start on their college career and to students who may not normally consider college, (underperforming students, low-income, special needs, first generation college goers, etc.) We envision that once at full capacity that all students would graduate from Quaboag Regional with a portion of college credit.

According to the Early College High School Initiative, started in 2002, an Early College High School should:

- 1) Ensure a higher college and career readiness success rate: Early college designs serve as a proven college- and career-ready strategy for students not already college bound and as a head start on college for those already committed to a postsecondary credential.
- 2) Improve alignment of standards and curricula: Early college designs support and reinforce alignment of postsecondary courses with career and college-ready standards.
- 3) Support high school and college teams in sharing accountability for the transition into college: Early college designs undergird mutual accountability of secondary and postsecondary institutions by providing a feedback loop on student performance and academic standards in the last two years of high school and first two years of postsecondary education.<sup>1</sup>

**“Challenges” or barriers to the current improvement plan, as it pertains to the High School, include:**

- Funding
- Limited access to technology, out-dated computer labs
- Decreasing enrollment
- Establishing consistent data and technology systems
- Inaccurate perception of the quality of our school

#### **1. Addressing Challenges**

- **Funding** - We will research funding opportunities from foundations and community groups, apply for all STEM funding and innovation initiatives from the State and employ fundraising activities. We will also apply for 501 (c)(3) status which will allow us to pursue funding opportunities currently unavailable to public schools.

- **Access to technology** – We will research grants from foundations, as well as, state and federal grants to purchase updated technology and develop a technology sustainability plan.
- **Enrollment** – We will advertise the ECHS through newspaper, local cable access, fliers, and letters to families who have “choiced” out of the district. The early college high school movement encourages the creation of small schools to build highly personalized and supportive learning environments. It is our goal that students will know the school staff and each other well. This will be accomplished through active advising, innovative teaching, counseling, and a small school design. Our program will have 20 students during the first semester of operation.
- **Consistent data use**- We will use the Accuplacer exam to assess students’ needs, collaborate with HCC to assist students who want to attend but need to reach proficiency standards in MCAS. We will coordinate and disseminate data obtained from the Educational Data Warehouse to assist teachers in data use for improved instruction. We will also implement the Schools Interoperability Framework to assess and improve instruction.
- **Improving Perception** – We will actively seek out opportunities for recognition for our teachers and students, including awards, scholarships, and grants. In addition, we will work to promote the Early College High School innovation status and its unique identity as a STEM-focused school. We will share successful practices with the community through community nights and with the state and nation through our website.

**Strengths of current district plan include:**

- A new, passionate and energetic administration team committed to school and student improvement;
- An experienced and committed staff excited about innovation;
- New Vertical Teams (professional learning communities) in all departments
- New Data Team to improve instruction and assessment

**Initiatives:** Mass Math and Science Initiative, BioTeach program by Mass BioEd, teacher mentor program (district initiative), Holyoke Community College, Solar Project with Nexamp, implementation of Schools Interoperability Framework (SIF.)

**Structures:** Rotating extended block, weekend AP program, daily team planning time, professional development opportunities, and vertical team learning communities.

**District Support:** professional development initiatives, pre-school family center in one elementary school. The District is very supportive of the innovation early college high school program and opportunities afforded by autonomies.

**Relationship building with several potential partners located in Massachusetts:** Holyoke Community College, Mass BioEd, Hampshire Educational Collaborative, Mass Math and Science Initiative, Intel, Jobs for the Future, Kittredge Center for Business and Workforce Development.

The Quaboag Innovation STEM Early College High School program will use the staffing, budget, curriculum/instruction, schedule, and district policy autonomies to strengthen teaching and increase academic achievement and college readiness for students by focusing on the following:

- **Integrate a STEM focus** (science, technology, engineering and math) including bio-technology, robotics, and solar energy into the curriculum.
- **Integrate intelligent technology use into the curriculum, build "smart classrooms,"** and use **blended-learning models** to engage students and broaden technology access to all students and teachers.
- **Exercise staffing autonomies** by hiring Holyoke Community College faculty to teach on the Quaboag Regional School premises and forming articulation agreements with Holyoke Community College that allow students to take courses taught by our current faculty and receive high school and college credit at the same time.
- Engage in **inquiry-guided, collaborative learning** with a focus on problem-solving.
- **Hands-on, project-based education** will enhance creativity and insight.
- Build **global awareness and skills** to compete in a worldwide economy.
- Connect curriculum to **experiences outside the classroom** including expert/practitioner visits and presentations, internships, and projects involving real-world challenges i.e. Grand Challenges.
- **Create powerful communities** that communicate and collaborate, including an alumni, alma mater, and community network in STEM fields.
- **Create a green focus** committed to clean-energy and sustainability **using the "school building as a teaching tool"** to engage students i.e. solar energy, weatherizing, metering, and calculating energy use. (It is important to note that the Quaboag Regional School District secured funding to install solar panels all schools. Solar Panels are now installed. We plan to incorporate this renewable energy focus into the curriculum.)

#### **D. Primary and Proposed Partnership(s)**

Our primary, proposed external partner is Holyoke Community College (HCC). The applicant group has met with Jeff Hayden, Dean; Ken White, Dean, Community Services and Business & Community Services Dean; and Theresa Howard, Dean Cooperative Education and Career Services, Tech Prep, School-to-Career, and MCAS. The grant writer has been in continual contact with Ken White, setting up dates for the Accuplacer and researching needs for the robotics laboratory and a solar energy lab. We will continue to work together to obtain

articulation agreements in other courses including but not limited to: bio-technology, psychology, marketing, and accounting.

One of the key reason we are looking to establish HCC as a partner is their lengthy experience collaborating with local schools on dual-enrollment and teaching college courses off campus. In addition, they are the most cost effective schools in our area. HCC and Quaboag Regional will jointly develop the innovation plan. Without this partnership it would not be possible to have our students remain on our campus and receive college credit. HCC has dual-enrollment programs with neighboring Ware High School, and programs in other college readiness initiatives including Mt. Tom Academy with Hampshire Educational Collaborative, Top Floor Learning in Palmer, and Gateway to College.

We would also like to collaborate with Worcester Polytechnic Institute and the University of Massachusetts since their varied course offerings may help us provide learning for a variety of students. Our main goal is to provide college experience and credit to as many students as possible.

HCC will provide guidance and consultation, Accuplacer testing, faculty, assessment and on-going support in the establishment of the Quaboag Innovation STEM Early College High School program including:

- College credit classes. The District would choose courses to be offered reflecting the interests of the students. And the college would provide on-site College Placement Testing for placement purposes.
- HCC would offer a targeted admissions, financial aid and college readiness support program and would work with the district to design an implementation plan for this effort.
- HCC would work with Quaboag Regional HS to establish a program which would encourage students to explore college and career pathways, especially in business and engineering.
- HCC would work with Quaboag to establish some of the programs listed below at the request of the district within State guidelines.
- Coordination of the development of Program of Study Grids which map the sequence of high-school and college courses that (as well as career planning) students should complete in their career pathways.
- Coordination of the development of articulation agreements between high schools and community colleges that award post-secondary credit for courses taken at the high schools that produce the same competencies as the

articulated college course.

- Early college placement testing in the junior year of high school.
- Career exploration through attendance at the Consortium Career Fair featuring hands on demonstrations and presentations by employers in career fields such as business, clean energy, health, hospitality, information technology, and manufacturing technology.

The following list includes the established partners that have begun to work with Quaboag Regional:

1. Holyoke Community College – consultation, ECHS development, faculty
2. [Mass BioEd](#) –bio-technology professional development, supplies grant program, networking and consultation.
3. [Nexamp](#) – Solar project, solar panels on all schools, educational solar kiosks
4. [Mass Math and Science Initiative](#) – state’s largest math and science program aimed to improve AP scores, and increase interest in STEM careers. Current Saturday classes.
5. [District and School Assistance Center](#) - Educational Data Warehouse training to organize student progress data to inform instruction
6. University of Massachusetts – professional development and consultation
7. [Project Adventure](#) – school culture/team work program

The team will work to develop additional partners for professional development, curriculum, enrichment projects and activities for students, STEM coaching, field studies and networking. These prospective partners include:

1. [Intel](#)- professional development and consultation
2. [NASA](#) – Professional Development, site visits to Framingham Challenger facility and consultation
3. [Project Lead the Way](#) – technology, engineering, and biomedical sciences curriculum
4. [DesignLab](#) – possibility to pilot hands-on, engineering program
5. [DigiGirls](#) – STEM focused initiative to attract girls to sciences
6. [Weatherbug](#) – weather station, real-time lessons and science curriculum
7. Western New England College – [Junior Solar Sprint](#) program
8. Worcester Polytechnical Institute – [Lego First robotics](#) competitions
9. [Science Buddies](#) – free, age-appropriate projects and lesson plans
10. [iRobot](#) – SPARK Starter Program for the Advancement of Robotics Knowledge k-12 resources and presentations
11. [Green Schools Alliance](#) – building as a teaching tool and other curriculum
12. Quaboag Regional School District – establish an Alumni network of professionals
13. Harvard University – Alma mater network; consultation, coaching, presentations, resources

14. John Hopkins University – Audio engineering master class Peabody School of Music
15. [Honda Foundation](#)– STEM after- school program funding
16. [Second Step](#) – emotional and social learning curriculum
17. [Youth Service America](#)- projects and grants for service-learning opportunities
18. [Renaissance Learning](#) – Advanced technology for data-driven schools, reading and math software

## II. How autonomy and flexibility will be used to improve school performance and student achievement.

### A. Curriculum and Instruction

#### Why create a STEM Focus?

According to the [Bill and Melinda Gates Foundation](#), “student achievement in STEM disciplines in high school is among the strongest predictors of success in college.”<sup>i</sup> In addition, they believe that technology holds the promise of delivering learning solutions in a cost-effective manner.<sup>ii</sup>

According to the [Governor’s Science, Technology, Engineering and Math Advisory Council](#),

- 1) Eighty percent of jobs created in the next decade will require math and science skills.
- 2) STEM related jobs pay higher wages and have greater levels of job security during down economic periods than other sectors.
- 3) STEM-related positions are likely to lead to medical advances, the creation of new products, and a stronger national economy

“This Advisory Council is working to move Massachusetts in a positive direction relative to a STEM-prepared workforce and jobs. Their goal is to ensure that all students are educated in STEM fields, which will enable them to pursue post-secondary degrees or careers in these areas, as well as raise awareness of the benefits associated with an increased statewide focus on STEM.”<sup>iii</sup>

Our prospectus is aligned with the [Massachusetts’ Plan for Excellence in STEM Education](#) and our goals strive to “nurture students’ innate curiosity...and spark student interest and excitement in STEM subjects through authentic experiential learning.”<sup>iv</sup> We will consult with the Regional STEM Collaborative to develop “best-practices” and will strive to be an important link in the STEM Pipeline as we pursue excellence in our role within the core of the state’s STEM Theory-of-Action outlined in the Massachusetts’s Plan for Excellence in STEM Education.

Massachusetts [STEM Theory-of-Action](#)



The Quaboag Innovation STEM Early College High School program will use the budget, staffing, policy, schedule, curriculum/instruction, and assessment autonomies to strengthen teaching and learning for all the students while increasing academic performance.

- STEM-focused curriculum to prepare students with 21<sup>st</sup> century skills.
- Intelligent integration of technology use in the curriculum.
- Implement Schools Interoperability Framework (SIF) to organize and improve data use to inform instruction.
- Personalized assessment and instruction
- Rigorous college level courses
- Collaboration with Holyoke Community College to improve college readiness

The Innovation Early College High School program will have small class sizes to ensure strong teacher/student relationships. Classes will be multi-grade and will allow students to learn at their own pace using blended-learning (online, off-campus, and class time.) In addition, work with HCC to develop a daily or weekly schedule that meets the students' needs and promotes program sustainability.

Students in the Innovation STEM ECHS will benefit from participation in internship experiences. These experiences will help students understand what it's like to work in their chosen fields and will help them in defining their interests and strengths. Students will earn college credit at Holyoke Community College upon successful completion of college courses taught at Quaboag Regional. This college credit may be used at Holyoke Community College or transferred to another institution in Massachusetts. Students may choose to apply to any college or university upon graduation from the Innovation STEM ECHS program.

## **B. Assessment**

Quaboag Innovation Early College High School will use standard assessments, performance-based exhibitions, student portfolios, and formative assessment. Bell and Cowie (2001) defined formative assessment as "the process used by teachers and students to recognize and respond to student learning in order to enhance that learning, during the learning." In addition, we will use the Accuplacer exam, and the Educational Data Warehouse to assess student improvement and to inform personalized instruction. A data team has been established in conjunction with the Department of Elementary and Secondary School Education. We will continue to train data team members that will support the Innovation Early College High School with data use for assessment.



### A comparison of assessment practices

Old Process	New Process	Examples
Students fill in blanks.	Students write/draw conceptions on any big idea listed.	Erosion is the breaking up rock (misconception).
Teacher uses checkmarks.	Teacher responds with probing comments.	How does this differ from weathering?
Teacher grades and hands back.	Student revises, expands on previous conceptions.	Weathering breaks up rock, erosion moves it.
Students file sheet away.	Teacher responds with probing comments.	How does it move and what are the consequences of erosion?
The process ends. News topic introduced.	The process continues with new topics being introduced.	How does deposition relate to erosion?

<sup>v</sup>Adapted from Juliann M. Kaftan, Gayle A. Buck, & Alysa Haack, *Using Formative Assessments to Individualize Instruction and Promote Learning*. *Middle School Journal*, March 2006, Vol. 37, Number 4. Pages 44-49.

Innovation in student assessment will allow students to take ownership of their education. For example, students can create portfolios of their semester work. Students then present their portfolios in PowerPoint at scheduled community days when families and community members gather to support the work, accomplishments, and projects of the students. By the completion of the ECHS program students will have made several presentations, increasing their communication, leadership, and public speaking skills, presenting ideas and information clearly and with expression.

In addition to portfolios, students will continue to be assessed with other standard assessments. The findings of these reviews will be used to determine strengths and weaknesses in particular cohorts and of particular skills. Appropriate interventions will be put into place based on assessment results and students' progress will be monitored and interventions will be modified as needed.

These new assessments will allow students to take ownership of their education. Community exhibitions will increase community and parent awareness of the Innovation School's achievements and will promote parent and community involvement.

The report, [\*When Failure is Not an Option: Designing Competency-Based Pathways for Next Generation Learners\*](#) was released December 22, 2010 by the International Association for K-12 Online Learning (iNACOL). We will look at Next Generation Learning Models of assessment including student-centered learning approaches. Next Generation Learning Models/student-centered learning are initiatives supported by Race To The Top innovations. According to a new study supported by the [Nellie Mae Education Foundation](#) student-centered learning approaches are "based on the science of how people learn and are frequently characterized by: Innovative uses of time; inclusion of a wider variety of adults - to complement teachers - in all

aspects of learning; measurement of skills and mastery of content using a combination of demonstration and traditional testing; learning that takes place both in and out of the classroom; and a persistent focus on the needs and interests of learners.”<sup>vi</sup>

### **c. Schedule and Calendar**

While still maintaining the same number of contractual school days (184) and 990 instructional hours (180 days for students) as required by state law, the Quaboag Innovation Early College High School program will extend student learning time by using blended learning models. The planning team will carefully construct a schedule that will allow all students (who place into the program with the Accuplacer) an opportunity to earn college credit. In addition to STEM courses, we will offer options in business, English and writing and will look to establish an inclusion model for our students with special needs.

The length of college courses will affect the ISECHS schedule. For example, the robotics and solar energy labs are approximately 3-hours long. The Implementation Planning Team will develop a sample schedule and calendar for the ISECHS program that will look to meet all of these needs.

Scheduling will allow the continued use of daily planning time, and daily collaborative planning time for staff.

### **D. Staffing**

As we enter into the first year of implementation, we plan to continue with our existing staff. The current contractual hours/days will be maintained. Faculty from Holyoke Community College will teach STEM college courses on the Quaboag Regional campus in Warren.

If student enrollment in the High School increases significantly, new staff may be required as per state requirements, and as the budget and other planning considerations allow. Any new teachers hired for the Innovation Early College High School program will become members of the local teachers union. Current high school classes (biotechnology, accounting), may be suitable for articulation agreements with Holyoke Community College. In the month of February, HCC will evaluate our curriculum competencies in certain classes with the goal to sign articulation agreements.

The Implementation Planning Team will look to align support staff to maximize staffing with a focus on student needs and achievement. We will look to develop collaborations with the local higher education agencies that would allow college student volunteers to assist in STEM courses, allowing for more interaction between teacher and student.

Our new Vertical Teams (professional learning communities) will continue to set goals, collaborate, and improve school culture.

## **E. Professional Development**

Professional Development opportunities will be provided for all new STEM initiatives or new curricular initiatives. ISECHS Staff will also have the opportunity to receive PD in project-based learning, Next Generation Learning Models and/or student-centered learning.

Professional Development will also be provided for any new technology acquisitions, and “smart-classroom” upgrades.

The Implementation Planning Team will research Professional Development offered by partners HCC, Mass BioEd, MMSI, UMass, DSAC and DESE; and potential partners including, but not limited to Intel, NASA, and Renaissance Learning.

## **F. Policies and Procedure**

Policy autonomies will allow faculty from Holyoke Community College to teach on the Quaboag Regional campus and allow students to earn up to 32 college credits and high school credit simultaneously. Quaboag Regional teachers have already expressed interest in pursuing articulation agreements with HCC that would allow current high school classes to count as college credit.

According to the Early College High School Initiative, started in 2002, an Early College High School should:

- 1) Ensure a higher college and career readiness success rate: Early college designs serve as a proven college- and career-ready strategy for students not already college bound and as a head start on college for those already committed to a postsecondary credential.
- 2) Improve alignment of standards and curricula: Early college designs support and reinforce alignment of postsecondary courses with career and college-ready standards.
- 3) Support high school and college teams in sharing accountability for the transition into college: Early college designs undergird mutual accountability of secondary and postsecondary institutions by providing a feedback loop on student performance and academic standards in the last two years of high school and first two years of postsecondary education.<sup>1</sup>

The Innovation Early College High School program will be a program within Quaboag Regional Middle High School. It will share the same governance structure as the rest of the district, with the exception of shared accountability for success with Holyoke Community College.

The enrollment process to the ISECHS will differ from the current high school. Students will need to take the Accuplacer exam. The Accuplacer ensures college readiness levels. If students do not place into the program, we will work with them to improve proficiency and retake the exam. All efforts will be made to ensure that all Quaboag students who wish to pursue college credit during high school will have the opportunity.

Promotion and graduation standards will require flexibility which allows the college credit to be accepted as high school credit.

We will comply with the state Innovation School statute G.L. Chapter 71, Section 92 – Innovation Schools.

The Implementation Planning Team will research the feasibility and requirements of becoming a 501(c)(3).

**Adapted from Pathways Early College High School:**

**Cost**

The Innovation STEM Early College High School program covers the cost of course tuition and fees for enrolled students. Students will be responsible for their books and school supplies. Current high school students are ineligible to receive Federal financial aid.

**Eligibility**

Students must reside in Massachusetts, possess a minimum high school GPA of 2.5 (cumulative, based on a 4.0 scale), be at least 16 years old and entering Grade 11 by the start of the fall semester, be recommended by the sending school and complete the ISECHS application process. Students who have not passed the MCAS will be scheduled to take the appropriate test at Quaboag. Students must be willing to enroll in classes during all available semesters, in order to complete diploma and associate degree requirements during the program.

**Application Process**

Applications accepted on a first-come, first served basis. In order to be eligible for the program, applicants must attend an information session, complete placement testing, and be interviewed by the Quaboag Regional High School principal.

### **III. Capacity of the Applicant Group**

The local increase in poverty and decrease in enrollment and student achievement moved the applicant group to propose an Innovation School. Creating an innovation school would not only bolster moral and foster excellence in achievement for the students, but it would revitalize the community with direction, “real-world” relevance, and opportunities to improve student achievement and college readiness.

Quaboag Regional Middle High School developed this school-based initiative with the support of the principals, the Quaboag Regional District Administrative Team, and the Quaboag Regional School Committee. A presentation was made to the Quaboag Regional School District school committee on January 28th, 2011 and they unanimously voted to support the idea of pursuing an Innovation Early College High School program. The Lead Applicant, Greg Myers; the superintendent, Brett Kustigian; and the grant writer, Madeline Wheeler met with the Vice President of Holyoke Community College, John Hayden; Dean of Cooperative Education, Theresa Howard; and Dean, Community Services and Business & Community Services, Ken White in November 2010. The grant writer consulted with NASA education, Intel, Mass BioEd, and Holyoke Community College before writing the prospectus.

The primary authors are Greg Myers, principal and Madeline Wheeler, grant writer. Parent informational nights will be held in late February 2011. Flyers about the Innovation School initiative in Massachusetts and the Early College High School Initiative will go home with students to ensure community awareness and parent involvement in the planning stage.

The applicant group submitting this proposal consists of: Brett Kustigian, Superintendent; Greg Myers, Principal; Mary Dernalowicz, Assistant Principal; Joe Scanlon, Business and Finance Manager; Wendy Prunier, Director of Special Education; Steve Bachelder, Technology Specialist; and Madeline Wheeler, parent of two children in the district and district grant writer, and Ken White, Dean Community Services and Business & Community Services, Holyoke Community College.

The applicant group consists of strong administrators and former teachers, a special education professional, a business manager, a technology specialist, and an experienced college education outreach and program development department head. We are confident that as a group we will make the Innovation Early College High School a success. Though backgrounds vary, we all share the same commitment to excellence and innovation in education. The ability to embrace and pursue change, as a group, makes us a strong team for this enterprising project. As a district all of our decisions are made in the best interests of the students. As mentioned previously in the Governance section, the Quaboag Innovation Early College High School will maintain its current governance structure: School Committee, Superintendent, Principal, Assistant Principal, Business Manager, and Director of Special Needs.

Mr. Kustigian, Superintendent, is a graduate of the University of Massachusetts. He is in the process of leading our entire district into an innovation, STEM-focused learning zone. His key academic priorities are biotechnology, technology, and “going green.” He understands the importance of workforce development and the growing industries in Massachusetts, as well as, the global economy and considers these while developing the vision for our STEM-focused future. He is responsible for the award of BioTeach grants for our high school, as well as, his former school in Douglas, MA where he was the principal. In addition, along with the Business Manager, he spear-headed a solar project and with Nexamp which resulted in a grant award of solar panels for all schools in the district. Superintendent Kustigian, our Union representative, and our School Committee Chair were selected out of hundreds of schools across the nation to attend a national conference on collaboration with U.S. Secretary of Education, Arne Duncan. Mr. Kustigian will continue to govern the ISECHS program. CV attached.

Mr. Myers, Principal, is a graduate of Assumption College. Principal Myers was recently selected to speak at the Massachusetts’ forum on “Implementing the Common Core State Standards.” He also developed and implemented a year-long curricular initiative based upon NEASC accreditation standards to focus exclusively on effective assessment. He will work closely with the superintendent to continue to develop the vision for all of our STEM initiatives. Principal Myers will be the principal for the ISECHS program. CV attached.

Ms. Dernalowicz, Assistant Principal, is a graduate of Fitchburg State College. She was formerly Dean of Students and currently is Head of the Science Department and Assistant Principal. She has a strong background in geo-physical science. CV attached.

Mr. Scanlon, Business and Finance Manager, is a graduate of Montclair State University. He oversees the budget and all business matters. He will work with the Superintendent and Grant Writer to research funding opportunities to sustain and the Quaboag Regional Innovation Middle School. He will also oversee and manage the budget, grants, and 501(c) 3 application processes. CV attached.

Ms. Wheeler, grant writer, is a graduate of Harvard University. She is responsible for researching and writing federal, state, private, and foundation grants. Her main initiatives are to secure funding for STEM and innovation initiatives. In addition, she is responsible for presentation and program coordination of Innovation School initiatives, including researching, networking, and securing funding for the Innovation School. CV attached.

This eight-person applicant group will undergo moderate changes when transformed into the Planning Team. Several teachers and parents would like to be on the planning team. We expect to have five middle school teachers including the lead special education teacher and a union representative, several parents, a coordinator, and school administrators on the Planning Team. The initiative will move from the prospectus stage to the planning stage in late February 2011.

## **IV. Timetable for Development and Establishment**

Our performance benchmarks over three years are fully aligned with the state Race to the Top goals with some benchmarks occurring before target dates. The Implementation Planning Team will fully develop and complete an Annual Goal Template and a timeline with benchmarks for a three year period. Following is a preliminary timetable:

### **Spring 2011:**

Create an Implementation Planning Team.

Pilot FIRST<sup>®</sup> Lego<sup>®</sup> Robotics afterschool club.

Research solar energy curriculum and lab needs consulting with Holyoke Community College.

Research robotics curriculum and lab needs consulting with Holyoke Community College.

Research technology partners and choose appropriate technology to create “smart classrooms.”

Research technology that will enhance the learning of students with special needs.

Research blended-learning curriculum i.e. Virtual labs, gaming mathematics software, Xfinity.

Solidify partner relationships with written commitments.

Have students interested in attending the ISECHS take the Accuplacer exam.

Create a separate budget for the STEM Early College High School program.

Research additional funding opportunities to sustain Innovation STEM Early College High School program.

Submit curriculum competencies to Holyoke Community College.

### **Summer 2011:**

Solidify articulation agreements.

Create near-real-time access to student data by implementing the Schools Interoperability Framework (SIF).

Acquire wireless capability.

Solidify college/high school course faculty and contracts.

Research and acquire curriculum and supplies for fall 2011 college/high school classes.

Acquire any necessary site licenses for college/high school classes.

Advertise ISECHS

### **Fall 2011:**

Issue Accuplacer for students who didn't place or who didn't have a chance to take Accuplacer.

Professional Development on new technology applications (Intel, Universal Design).

Implement ISECHS with two science classes and one core college class.

Implement STEM clubs and afterschool activities.

Professional Development on effective data-use late fall 2011.

### **Spring 2012:**

Add three additional classes to ISECHS.

End of spring 2012, Complete Annual progress report for superintendent and school committee.

## V. Measurable Annual Goals

The Quaboag Innovation STEM Early College High School will be assessed across multiple measures of school performance and student success. The Innovation Planning Team will choose several measurable annual goals including, but not limited to, student attendance, enrollment figures, student promotion, graduation, dropout rates, participation and success of female students in the Stem courses (females have historically been underrepresented in the STEM workforce), student achievement on the Accuplacer, annual yearly progress of subgroups, including low-income students as defined by chapter 70, limited English-proficient students, special education students, and reduction of achievement gaps. The Educational Data Warehouse and the implementation of the Schools Interoperability Framework are essential to provide the meaningful analysis and use of data to inform instruction.

When defining measurable annual goals, the Quaboag Innovation STEM Early College High School will ensure that each goal addresses each of the following questions:

<b>What</b> will change, or	<b>What</b> will the result be?	[assessment tool or metric]
<b>Who</b> will achieve the change, or	<b>Who</b> will achieve result?	[person(s) or organization(s)]
<b>How much</b> change is expected, or	<b>How much</b> will the result be?	[quantity]
<b>When*</b> will the change be achieved, or	<b>When*</b> will the results occur?	[time frame or target date]

### **Goals for Quaboag Innovation STEM Early College High School**

<b>District Goals</b>	<b>Current (2009)</b>	<b>RTTT Goal (2014)</b>
Increase the percentage of students who graduate from high school within four years by 5%	76.1%	79.3%
Increase the percentage of graduates who enroll in college within 16 months of graduation by 5%	54.7%	57.4%

#### **Reduce Gaps**

Reduce gaps in high school graduation and college (LI)	5.0	4.3
enrollment for each low performing subgroup 15% (SPED)	3.9	3.3

<b>Innovation STEM Early College High School goals</b>	<b>(2009)</b>	<b>(2014)</b>
Increase the percentage of students who graduate from high school within four years	76.1%	85%
Increase the percentage of graduates who enroll in college within 16 months of graduation	54.7%	85%

#### **Reduce Gaps**

Reduce gaps in high school graduation and college (LI)	5.0
enrollment for each low performing subgroup 25% (SPED)	3.9



## **Attachments**

### **ISEGHS Sample Assessment Template**

<b>Conditions for School Effectiveness</b>	<b>Pre-Implementation</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Effective district systems for school support and intervention				
Effective school leadership				
Professional development and structures for collaboration				
Project-based learning and adequate learning time				
Students' social, emotional, and health needs				
Family-school relationships				
Strategic use of resources and adequate budget				
Aligned, college level curriculum				
Effective instruction				
Student assessment				

## **Holyoke Community College Course Descriptions**

### **ROBOTICS**

#### **EGR 110(D) Introduction to Robotics I - 4 credits**

Explore the multidisciplinary world of robotics, and its relevance to current humanitarian, social, and environmental concerns. Modeling the fields of science and engineering, this class will be based on teamwork and cooperative problem solving in a supportive, hands on, laboratory environment. Solutions to a series of challenges will be designed, constructed, tested and revised by students working together in groups. A standard, modular, mobile robotics system will be used to design and construct robots capable of carrying out a single task or multiple tasks related to a variety of applications. The role of science, engineering and technology in modern society will also be explored. *Prerequisite: None 3 class hours and 3 laboratory hours (Class and lab hours combined into two 2-1/2 hour meetings).*

#### **EGR 111(D) Introduction to Robotics II - 4 credits**

As a continuation of EGR 110, this class will be based on teamwork and cooperative problem solving in a supportive, hands-on laboratory environment. Solutions to a series of challenges will be designed, constructed, tested and revised by students working together in groups. Robots will be based on a standard, modular, mobile robotics system with the addition of sensors designed and built by students. A text-based language (similar to C) will be used for programming the robots. *Prerequisite: EGR 110 3 Class hours and 3 laboratory hours (Class and lab hours combined into two 2-1/2 hour meetings).*

### **SOLAR TECHNOLOGY - SUSTAINABILITY**

#### **SUS 104 (D) Intro to Solar Energy – 4 credits**

This course provides a comprehensive training in the application of solar technology. Students will gain an understanding of the solar energy resource and its adaptive application in a variety of strategies including passive solar, active solar thermal and photovoltaics. In addition, students will practice designing systems on site for a given location and explore the potential of a solar-based economy. The laboratory will train students to conduct solar energy site assessments, install solar thermal systems and promote the use of solar energy in residential, commercial and municipal facilities. *Prerequisites: SUS 102 & SUS 103*

#### **ENG 101(A) Language and Literature I - 3 credits**

This course covers the ability to communicate with others, to think critically, and to comprehend reading assignments. Emphasis is on expository writing, the research process, and on acquiring word processing and other appropriate computer skills. Frequent short essays are assigned, amounting to a total of approximately three thousand words during the semester. *Prerequisite: Appropriate score on English Placement Tests or completion of ENG 097 and/or ENG 098 with a grade of C-or better, or ENG 096 or ENG 099 with a grade of C-or better. 4 Contact hours*

## **Holyoke Community College Course Descriptions**

### **MKT 240 Principles of Marketing - 3 credits**

An introduction to marketing and its role in the success of organizations and today's economy – both U.S. and global. Focus will be on building a sound understanding of the role of the consumer in developing marketing strategies, including the design of the marketing mix – product, price, distribution and promotion. The relationship of marketing to the behavioral sciences will all be emphasized along with the influence of information technologies and e-commerce.

### **MTH 104(D) College Algebra - 4 credits**

A college-level course including more advanced topics in algebra, functions, graphs, and problem solving. *Prerequisite: MTH 095 with a grade of C-or better or adequate score on the Mathematics Placement Examination. 4 class hours*

### **PSY 110(B) Introduction to Psychology - 3 credits**

Introduction to the study and principles of behavior. Topics include general principles of scientific investigation; physiological bases of behavior including sensation, perception, learning, emotion, and motivation; development; individual differences; attitudes; and group dynamics. *Prerequisites: Passing scores on the English Placement Examinations or satisfactory completion of ENG 097 and ENG 098*

## **VII. REQUIRED ATTACHMENTS**

- Attachment A: Innovation School Approval Calendar
- Attachment B: Statements of Commitment
- Attachment C: Résumés of Applicant Group
- Attachment D: District Improvement Plan

## A. Innovation School Approval Calendar

<b>Name of Grant Program:</b> Innovation Schools Planning Grant	<b>Fund Code:</b> 202
---	--------------------------

### Innovation School Approval Calendar

Instructions: **Please indicate the dates on which Innovation School approval steps were completed or are proposed to be completed (non-binding). Thank you.**

District Name:	Quaboag Regional School District	LEA Code:	0778
Innovation School Name:	Quaboag Innovation STEM Early College High School		

First Stage Innovation School Approval Steps – Must be completed prior to submitting a planning grant application to the Department.	Date Completed
1. <b>Submission of Prospectus:</b> The applicant prepares a prospectus and submits it to the superintendent.	January 7, 2011
2. <b>Screening Committee Approval:</b> Within 30 days of receiving the prospectus, the superintendent convenes a screening committee, which includes (please indicate name of member and outcome of vote: (i) the superintendent or his designee: <u>Brett Kustigian</u> <b>Vote:</b> <u>Accept</u> / Reject (ii) a school committee member or a designee; <u>Leane Pierce</u> <b>Vote:</b> <u>Accept</u> / Reject (iii) a representative of leadership from the local teachers' union. <u>Amy Bacon</u> <b>Vote:</b> <u>Accept</u> / Reject	Feb 1, 2011

Final Innovation School Approval Steps – Must be completed before the school can become operational and before the applicant can be considered for implementation funding.	Proposed Date for Completion
3. <b>Formation of Innovation Plan Committee:</b> Within 30 days of screening committee approval, the applicant creates the innovation plan committee, on which there can be no more than 11 members.	Feb 28, 2011
4. <b>Innovation Plan Committee Approval:</b> The innovation plan committee develops and approves the innovation plan.	April 25, 2011
5. <b>Teacher Approval or Waivers/Modifications Negotiations:</b> Teachers review and approve the innovation plan for a conversion school, or local stakeholders negotiate proposed waivers from or modifications to the collective bargaining agreement (if applicable) for a new school. a. In the case of a conversion school, the applicant must submit the innovation plan to current teachers in the school for approval (2/3 approval by secret ballot) within 30 days of completing the innovation plan. b. In the case of a new school, the applicant, local union, and superintendent are required to negotiate waivers or modifications to the applicable collective	May 2, 2011

bargaining agreement that are necessary for the school to implement the innovation plan.	
6. <b>Public Hearing:</b> After receiving an innovation plan, the school committee is required to hold at least one (1) public hearing. After the hearing, but not later than 60 days after the receipt of the innovation plan, the school committee votes to authorize the Innovation School for a period of up to five (5) years.	May 30, 2011
7. <b>School Committee Authorization:</b> The school committee reviews the innovation plan and votes to authorize the establishment of the Innovation School. Approval of the majority of the school committee as fully constituted is required to authorize an Innovation School.	May 30, 2011

<b>Typed Name of Innovation School Lead Applicant:</b>	Greg Myers
<b>Signature of Innovation School Lead Applicant:</b>	
<b>Date:</b>	1/14/2011

<b>Typed Name of Superintendent:</b>	Brett Kustigian
<b>Signature of Superintendent:</b>	
<b>Date:</b>	1/14/2011

## **B. Applicant Group Statement of Commitment**

### **G.L. Chapter 71, Section 92 – Innovation Schools**

Section 92. (a) An Innovation School shall be a public school, operating within a public school district that is established for the purpose of improving school performance and student achievement through increased autonomy and flexibility. An Innovation School may be established as a new public school or as a conversion of an existing public school. A student who is enrolled in a school at the time it is established as an Innovation School shall retain the ability to remain enrolled in the school if the student chooses to do so.

(b) An Innovation School may establish an advisory board of trustees. An Innovation School shall have increased autonomy and flexibility in 1 or more of the following areas: (i) curriculum; (ii) budget; (iii) school schedule and calendar; (iv) staffing policies and procedures, including waivers from or modifications to, contracts or collective bargaining agreements; (v) school district policies and procedures; and (vi) professional development. An Innovation School shall receive each school year from the school committee the same per pupil allocation as any other district school receives. An Innovation School may retain any unused funds and use the funds in subsequent school years. An Innovation School may establish a non-profit organization that may, among other things, assist the school with fundraising. A district shall not reduce its funding to an Innovation School as a result of the school's fundraising activities.

(c) An Innovation School established under this section shall be authorized by the local school committee and shall operate according to an innovation plan, which shall articulate the areas of autonomy and flexibility under subsection (b). To the extent practicable, the innovation plan shall be based on student outcome data, including, but not limited to: (i) student achievement on the Massachusetts Comprehensive Assessment System; (ii) other measures of student achievement, approved by the commissioner, as appropriate; (iii) student promotion, graduation rates and dropout rates; (iv) achievement data for different subgroups of students, including low-income students as defined by chapter 70, limited English-proficient students and students receiving special education; and (v) student attendance, dismissal rates and exclusion rates.

An Innovation School shall operate in accordance with the law regulating other public schools, except as the law conflicts with this section or any innovation plans created thereunder.

(d) An Innovation School is a school in which: (i) faculty and leadership are primarily responsible for developing the innovation plan under which the school operates and leadership is responsible for meeting the terms of the innovation plan; or (ii) an external partner is primarily responsible for developing the innovation plan under which the school operates and the external partner is responsible for meeting the terms of the innovation plan.

(e) Nothing in this section shall be construed to prohibit: (i) the establishment of an Innovation School as an academy within an existing public school; (ii) the establishment of an Innovation School serving students from 2 or more school districts; provided, however, that all of the provisions of this section are met by each school district; (iii) the simultaneous

establishment of 2 or more Innovation Schools as an Innovation Schools Zone within a school district; or (iv) the establishment of an Innovation School as a virtual public school that provides instruction to students through distance learning, including online learning programs and courses, subject to regulations adopted by the board of elementary and secondary education.

(f) The following shall be eligible applicants for the purposes of establishing an Innovation School: (i) parents; (ii) teachers; (iii) parent-teacher organizations; (iv) principals; (v) superintendents; (vi) school committees; (vii) teacher unions; (viii) colleges and universities; (ix) non-profit community-based organizations; (x) non-profit business or corporate entities; (xi) non-profit charter school operators; (xii) non-profit education management organizations; (xiii) educational collaboratives; (xiv) consortia of these groups; and (xv) non-profit entities authorized by the commissioner. Private and parochial schools shall not be eligible to operate an Innovation School.

(g) The local school committee, local teacher's union and superintendent of the district shall follow a process, consistent with this subsection and subsections (h) to (o), inclusive, for which an existing district school may be converted to an Innovation School or by which a new Innovation School may be established within the district. This process shall require that an eligible applicant proposing to establish an Innovation School prepare a prospectus regarding the proposed school. The prospectus shall include, but not be limited to, a description of: (i) whether the school will be a new school or a conversion of an existing school; (ii) if the school is a new school, the proposed location of the school; (iii) if the school is a conversion of an existing school, the school that is being proposed for conversion; (iv) the external partners, if any, that will be involved in the school; (v) the number of students the school is anticipated to serve and the number of staff expected to be employed at the school; (vi) the overall vision for the school, including improving school performance and student achievement; (vii) specific needs or challenges the school shall be designed to address; (viii) a preliminary assessment of the autonomy and flexibility under subsection (b) that the school will seek; (ix) why such flexibility is desirable to carry out the objectives of the school; (x) anticipated components of the school's innovation plan; (xi) a preliminary description of the process that shall be used to involve appropriate stakeholders in the development of the innovation plan; and (xii) a proposed timetable for development and establishment of the proposed school.

(h) Upon completion of the prospectus under subsection (g), an eligible applicant shall submit the prospectus to the superintendent, who shall within 30 days convene a screening committee consisting of the superintendent or a designee, a school committee member or a designee selected by the school committee and a representative from the leadership of the local teacher's union.

The screening committee shall review the prospectus for the purpose of determining whether the prospectus: (i) presents a sound and coherent plan for improving school performance and student achievement; (ii) supports or enhances existing educational efforts in the district; and (iii) reasonably can be expanded into a comprehensive innovation plan. In the case of a new school, the committee will prepare an impact statement describing how the new school will affect the children and faculty in the district. Within 30 days of receiving a prospectus, the screening committee shall decide, on the basis of a two-thirds vote, to accept or reject the prospectus, or return the prospectus to the eligible applicant for revisions. If a prospectus is rejected or returned, the screening committee shall submit a detailed explanation



for the decision to the applicant. A prospectus that is rejected or returned may be revised and resubmitted for subsequent consideration.

(i) Upon the acceptance of a prospectus by the screening committee under subsection (h), the applicant shall form an innovation plan committee of not more than 11 individuals within 30 days. The purpose of the innovation plan committee shall be to: (i) develop the innovation plan described in subsection (c); (ii) assure that appropriate stakeholders are represented in the development of the proposed Innovation School; and (iii) provide meaningful opportunities for the stakeholders to contribute to the development of such school. The size and composition of the innovation plan committee shall be determined by the applicant; provided, however, that the committee shall include: (i) the applicant; (ii) the superintendent or a designee; (iii) a school committee member or a designee; (iv) a parent who has 1 or more children enrolled in the school, or in the case of a new school, from the district; (v) a principal employed by the district; and (vi) 2 teachers employed by the district. The applicant shall select the parent from among nominees submitted by parent-teacher organizations in the district. If the district does not contain a parent-teacher organization or if the organization does not submit nominees, the applicant shall select the parent from among volunteers in the area or community the proposed school is expected to serve. The applicant shall select the principal and 1 teacher from among volunteers in the district and 1 teacher from among nominees submitted by the local teacher's union.

(j) Upon the formation of the innovation plan committee in subsection (i), the committee shall develop the innovation plan for the proposed Innovation School. The purpose of the innovation plan shall be to comprehensively articulate the areas of autonomy and flexibility under subsection (b) that the proposed school will use. The innovation plan shall include, but not be limited to: (i) a curriculum plan, which shall include a detailed description of the curriculum and related programs for the proposed school and how the curriculum is expected to improve school performance and student achievement; (ii) a budget plan, which shall include a detailed description of how funds shall be used differently in the proposed school to support school performance and student achievement; (iii) a school schedule plan, which shall include a detailed description of the ways, if any, the program or calendar of the proposed school will be enhanced or expanded; (iv) a staffing plan, which shall include a detailed description of how the school principal, administrators, faculty and staff will be recruited, employed, evaluated and compensated in the proposed school and any proposed waivers or modifications of collective bargaining agreements; (v) a policy and procedures plan, which shall include a detailed description of the unique operational policies and procedures to be used by the proposed school and how the procedures shall support school performance and student achievement; and (vi) a professional development plan, which shall include a detailed description of how the school may provide high-quality professional development to its administrators, teachers and staff.

In order to assess the proposed school across multiple measures of school performance and student success, the innovation plan shall include measurable annual goals including, but not limited to, the following: (i) student attendance; (ii) student safety and discipline; (iii) student promotion and graduation and dropout rates; (iv) student achievement on the Massachusetts Comprehensive Assessment System; (v) progress in areas of academic underperformance; and (vi) progress among subgroups of students, including low-income

students as defined by chapter 70, limited English-proficient students and students receiving special education; (7) reduction of achievement gaps among different groups of students.

A majority vote of the innovation plan committee shall be required for approval of the innovation plan.

(k) The provisions of the collective bargaining agreements applicable to the administrators, teachers and staff in the school shall be considered to be in operation at an Innovation School, except to the extent the provisions are waived or modified under the innovation plan and such waivers or modifications are approved under subsections (l) and (m).

(l) In the case of a school conversion, upon completion of the innovation plan in subsection (j), , the applicant shall submit the innovation plan to teachers in the school that is proposed for conversion for approval by secret ballot within 30 days. A two-thirds vote of the teachers shall be required to approve the plan. Upon approval of an innovation plan by the applicable union members the plan shall, within 7 days, be submitted to the school committee. If a two-thirds vote is not achieved, the innovation plan committee may revise the innovation plan as necessary and submit the revised plan to the teachers for a subsequent vote.

In the case of a new school, upon the completion of the innovation plan in subsection (j), the applicant, a local union and the superintendent shall negotiate waivers or modifications to the applicable collective bargaining agreement necessary for the school to implement the innovation plan. Upon the conclusion of the negotiations, the innovation plan shall be submitted immediately to the school committee. If the negotiations have not resulted in an agreement within 40 days, either party may petition the division of labor relations for the selection of an arbitrator. The division shall select an arbitrator within 3 days of the petition from a list submitted by the parties. The arbitrator shall conduct a hearing within 14 days of the arbitrator's selection. The arbitrator shall consider the parties' positions and the needs of the students in the district. The arbitrator's decision shall be consistent with the contents of the innovation plan developed by the applicant. The arbitrator shall, within 14 days of the close of the hearing, submit a decision which shall be final and binding on the parties.

(m) Upon receipt of an innovation plan regarding an Innovation School, a school committee shall hold at least 1 public hearing on the innovation plan. After the public hearing, but not later than 60 days after the receipt of the innovation plan, the school committee shall, on the basis of the quality of the plan and in consideration of comments submitted by the public, undertake a final vote to authorize the Innovation School for a period of not more than 5 years, subject to subsection (n). Approval of the majority of the school committee as fully constituted shall be required to authorize an Innovation School. If the approval is not obtained, an innovation plan committee may revise the innovation plan and: (i) in the case of a new school, submit the revised plan to the school committee for a subsequent vote; or (ii) in the case of a conversion, submit the revised plan to the teachers in the school that is proposed for conversion for a vote, pursuant to subsection (l); provided, however, that the plan meets the requirements for approval under subsection (l), submit the revised plan to the school committee for a subsequent vote. A school committee shall vote on a revised plan submitted pursuant to this subsection within 60 days of the receipt of such plan and contract.

(n) All Innovation Schools authorized under subsection (m) shall be evaluated by the superintendent at least annually. The superintendent shall transmit the evaluation to the school committee and the commissioner of elementary and secondary education. The purpose

of the evaluation shall be to determine whether the school has met the annual goals in its innovation plan and assess the implementation of the innovation plan at the school. If the school committee determines, on the advice of the superintendent, that the school has not met 1 or more goals in the innovation plan and that the failure to meet the goals may be corrected through reasonable modification of the plan, the school committee may amend the innovation plan as necessary. After the superintendent assesses the implementation of the innovation plan at the school, the school committee may, on the advice of the superintendent, amend the plan if the school committee determines that the amendment is necessary in view of subsequent changes in the district that affect 1 or more components of the plan, including, but not limited to, changes to contracts, collective bargaining agreements or school district policies; provided, however, that an amendment involving a subsequent change to a teacher contract shall first be approved by teachers at the school under the procedures in subsection (l).

If the school committee determines, on the advice of the superintendent, that the school has substantially failed to meet multiple goals in the innovation plan, the school committee may: (i) limit 1 or more components of the innovation plan; (ii) suspend 1 or more components of the innovation plan; or (iii) terminate the authorization of the school; provided, however, that the limitation or suspension shall not take place before the completion of the second full year of the operation of the school and the termination shall not take place before the completion of the third full year of the operation of the school.

(o) At the end of the period of authorization of an Innovation School approved under subsection (m), the leadership of the school may petition the school committee to extend the authorization of the school for an additional period of not more than 5 years. Before submitting the petition, the leadership of the school shall convene a selection of school stakeholders, including, but not limited to, administrators, teachers, other school staff, parents and external partners, as applicable, to discuss whether the innovation plan at the school requires revision and to solicit recommendations as to the potential revisions. After considering the recommendations of the stakeholder group, the leadership of the school and the applicable superintendent shall jointly update the innovation plan as necessary; provided, however, that a proposal regarding a new waiver or exemption from the local teacher's union contract shall be approved by teachers at the school, under subsection (l). Approval of the majority of the school committee as fully constituted shall be required to extend the period of authorization of an Innovation School. If the approval is not obtained, the leadership of the school and superintendent may jointly revise the innovation plan and submit the revised plan to the school committee for a subsequent vote. If the school committee does not extend the authorization of the school, the leadership of the school may seek the authorization from the board of elementary and secondary education. The board shall vote on the requested extension within 60 days of its receipt for approval of such extension.

(p) The commissioner of elementary and secondary education shall, to the extent practicable, be responsible for the following: (i) the provision of planning and implementation grants to eligible applicants to establish Innovation Schools; (ii) provision of technical assistance and support to eligible applicants; (iii) the collection and publication of data and research related to the Innovation Schools initiative; (iv) the collection and publication of data and research related to successful programs serving limited English-proficient students attending Innovation Schools; and (v) the collection and dissemination of best practices in Innovation

Schools that may be adopted by other public schools. The board of elementary and secondary education shall promulgate regulations necessary to carry out this section. Annually, the commissioner shall report to the joint committee on education, the house and senate committees on ways and means, the speaker of the House of Representatives and the senate president on the implementation and fiscal impact of this section.

---

By signing this document, I acknowledge that I have read the provisions of the Massachusetts' Innovation School statute **G.L. Chapter 71, Section 92- Innovation Schools**, and the Quaboag Regional Innovation Middle School proposal, and that I approve of our proposal and the opportunity to participate in the Massachusetts' Innovation School initiative.

Dated:

Quaboag Regional Innovation STEM Early College High School program applicant group signatures:

Superintendent:\_\_\_\_\_

Lead Applicant and Principal:\_\_\_\_\_

Assistant Principal:\_\_\_\_\_

Business and Finance Manager:\_\_\_\_\_

Technology Specialist:\_\_\_\_\_

Director of Special Education:\_\_\_\_\_

ECHS research and grant writer:\_\_\_\_\_

## C. District Improvement Plan

# ***2010-2011 Quaboag Regional School District Improvement Plan***

*The mission of the Quaboag Regional School District is to form a partnership with parents and the community to prepare our diverse population of students to become lifelong learners in a nurturing, safe environment with high expectations so they will become responsible, productive citizens in an ever changing global society.*



*Our vision is to provide a safe, supportive, and challenging learning environment in which students may achieve academic success and personal growth.*

*Decisions are made in the best interest of our students.*

<u>Table of Contents</u>	<u>Page number</u>
Part I. Curriculum, Instruction, and Assessment.....	3-5
a. ELA Vertical Team's Goals	
b. Math Vertical Team's Goals	
c. Science Vertical Team's Goals	
d. Social Studies Vertical Team's Goals	
e. World Language Vertical Team's Goals	
f. Wellness Vertical Team's Goals	
g. Arts Vertical Team's Goals	
h. Technology Vertical Team's Goals	
Part II. Teacher and Administrator Quality.....	6-9
a. Administrative Team's Goals	
Part III. Student Support Programs and Services.....	10-11
a. Guidance Vertical Team's Goals	
b. Special Education Vertical Team's Goals	
c. Food Service Department's Goals	
Part IV. Leadership and Governance.....	12
a. School Committee's Goals	
Part V. Business and Financial Management.....	13-14
a. Financial Goals	
b. Operational Goals	
c. Facilities Goals	

## **I. Curriculum, Instruction, and Assessment**

### **The QRSD English Vertical Team will:**

1. All grade levels will analyze recent MCAS results to identify subject areas that indicate a lack of student understanding. Once problems are recognized, specific instructional strategies will be developed and implemented to improve student performance. Information regarding the problems identified and strategies recommended will be brought to the January 2011 full-day professional development meeting.
2. Promote the benefits of participation in Advanced Placement courses to increase enrollment and the number of courses offered. Regularly monitor the progress of current enrollees to provide encouragement and support to both students and teachers. High school AP teachers will coordinate with each other to assess progress. Mock exams for students to be held in January 2011. Massachusetts Math and Science Initiative (MMSI) will be implemented during the 2010-11 school year.
3. Examine the current QRSD curriculum for alignment with the new Common Core Standards by June 2011.
4. Continue to focus on the writing standards across the curriculum and throughout the district. Implement school-wide rubrics through meetings with other departments and faculty.

### **The QRSD Math Vertical Team will:**

1. To improve teacher instruction by aligning Massachusetts State Frameworks with the Scott Foresman Math Text at each grade level by creating simple checklists to show completion of each standard. This goal is expected to take two years.
2. Observe best teaching practices through videos, visitations and sample lessons being taught. A file will be created of best practice.

### **The QRSD Science Vertical Team will:**

1. Each VT member will develop and administer formative assessments for a minimum of one thematic unit by the start of the new calendar year. Members will administer the assessment and collect student work samples to evaluate.
2. At the start of the calendar year, each team member will utilize protocols to examine student work to evaluate effectiveness of the assessment.

3. During the 2010-2011 school year, VT members at each grade level will visit other's science class. These visits will focus on one of the six instructional strategies.
4. On Oct. 12, 2010, using Test Wiz, Grades 7-12 will analyze '09-'10 MCAS Science scores to identify areas of strength and make recommendations for changing instruction.
5. At the January professional development meeting, each middle/high member will provide evidence of implementation of changes in instruction.

**The QRSD Social Studies/History Vertical Team will:**

1. The Social Studies Vertical Team in an effort to improve the instructional core will peer observe a colleague at least once this year and provide feedback to the group at a V.T. meeting.
2. The Social Studies Vertical Team members will each present a video clip of the first 10 minutes of their class instruction. The team will analyze the anticipatory set during professional development meetings.
3. The Social Studies Vertical Team members will each bring in one exemplar of student work to share and discuss at a V.T. meeting.
4. The Social Studies Vertical Team members will each present one method of formative assessment that they use with their students.

**The QRSD World Language Vertical Team will:**

1. The Foreign Language Vertical Team will visit each other's classrooms a minimum of two times during the 2010 -2011 school year. Observations will be shared on Professional Development days. Teachers will report on how the observed practices led to greater student achievement.
2. The Foreign Language Vertical Team will use full-day Professional Development time to visit Foreign Language programs at other schools (individually selected by each team member). Observations will be shared on the Professional Development day subsequent to the external visitations. Teachers will report on how the observed practices led to greater student achievement.
3. The Foreign Language Vertical Team will, as a Vertical Team, attend the annual conference of the American Council on Teaching Foreign Languages (ACTFL) to be held in Boston this November. Members will attend various workshops throughout the day and will share materials acquired and techniques learned in those seminars with each other. Teachers will plan to incorporate some or all of the new information gleaned at the conference into their own classrooms.



**The QRSD Wellness Vertical Team will:**

1. To identify, quantify, and report all key health status issues represented by students at QRSD through the documentation, review, utilization, and communication of key health and wellness data indicators collected by all Core Areas of Wellness\*, by December 31, 2010, to the School Committee, School Principals, Students, and our Community.
2. Each Core Area of Wellness\* will identify and research 3-5 current best practice standards to evaluate our present curriculum for what should be started, stopped, or modified in support of improved student health and learning by October 12, 2010.
3. Each Core Area of Wellness\* will be responsible to report on their activity related to research, identification and completion of applications for grants that address key health status issues, to improve standards of practice and to provide financial support for advancing QRSD educational programs prior to June 30, 2011.

**\*Core Areas of Wellness: Physical Education, Health, Nutrition, Nursing, and Family Consumer Science****The QRSD Arts Vertical Team will:**

1. The Arts Vertical Team will maintain a professional working atmosphere by using protocols, DDAE cycles, and data analysis. Periodical self assessment (3x per year) will inform areas of focus for future PD.
2. The Arts Vertical Team will increase student learning by improving our instructional core with particular focus on essential questions and goal setting. Student learning will be documented in common assessments and class observations by each team member by the end of the school year.
3. The Arts Vertical Team will work collaboratively between schools to promote our programs and increase student engagement. District wide arts events will be introduced this school year.

**The QRSD Technology Vertical Team will:**

1. Use evidence and course content to determine the gaps in K-12 business technology curriculum by the end of the 2010-2011 school year.
2. Plan K-12 business/technology experiences and instruction based on the identified gaps within the curriculum during the 2010-2011 and the 2011-2012 school years.

3. Review and evaluate business and technology learning experiences and instruction and make modifications where necessary during the 2010-2011 and 2011-2012 school years.

## **II. Teacher and Administrator Quality**

### **The administrative team will:**

1. In an effort to maintain visibility and manage by walking around, the Superintendent will visit every classroom in the Quaboag Regional School District at least once during the 2010-2011 school year and provide written feedback for each teacher in the district. To accomplish this goal, the Superintendent will make a concerted effort to spend Wednesdays in the schools and classrooms rather than his office.
2. In an effort to improve communication throughout the Quaboag Regional School District, the Superintendent will publish a monthly newsletter during the months of September 2010 through June 2011.
3. In an effort to improve student learning and distribute leadership to the teaching staff, the Superintendent will lead a team of ten vertical team chairs. The Superintendent will coordinate a meeting with the vertical team chairs before and after every professional development day for the 2010-2011 school year. In addition, the Superintendent will promote a partnership with the University of Massachusetts (Amherst) to raise teacher pedagogy and promote teacher leadership. Two days training for the vertical team chairs will be facilitated by the Superintendent and a Professor from UMASS.
4. In an effort to maintain a safe and supportive learning environment, the Superintendent will review the Quaboag Regional School District crisis plan. At least 3 meetings (start of the school year, midpoint, and end of the school year) will be coordinated with all local town officials.
5. In an effort to conserve energy, save money, and promote renewable energy, the Superintendent will further the partnership with Nexamp to provide solar energy at no cost to the QRSD. Each school will have a solar panel array by the end of the 2010-11 school year.
6. The QRMHS Principal will provide an induction program for all new faculty members in order to:
  - a. create a critical support system for new teachers;
  - b. foster collegiality and collaboration among new teachers;
  - c. provide information on school district policies and procedures;

- d. address the instructional needs of new teachers, including: planning and preparing lessons aligned with the curriculum differentiating instruction motivating reluctant learners assessing student progress
- e. help new teachers communicate effectively with parents;
- f. help new teachers improve classroom management.

Fifteen new teachers meetings will be held during the 10-11 school year (9/9, 9/23, 10/7, 10/21, 11/4, 11/23, 12/8, 12/20, 1/6, 1/20, 2/6, 3/3, 4/7, 5/5, and 6/2)

7. All Principals will implement the new teacher evaluation instrument for the 2010-2011 school year. August 31<sup>st</sup> Phase II Evaluation Instrument and options presented to faculty; dialogue October 15<sup>th</sup> Phase II goals submitted to building principal.
8. The QRMHS Principal, in collaboration with the NEASC Steering Committee Chairperson, will:
  - a. form a NEASC Steering Committee made up of a chairperson for each NEASC evaluation indicator.
  - b. form committees made up of faculty and staff, parents, students, and community members to begin the NEASC self-study process.
  - c. begin to foster school improvement initiatives at Quaboag Regional based both on initial information resulting from the self-study process and from recommendations outlined in the 2002 NEASC Accreditation Report.
9. The QRMHS Assistant Principal will develop and implement a district plan to address identification, prevention, and processing of bullying and harassment by December 31, 2010. Included will be a multi-phase system to track and record instances of bullying and harassment within QRMHS in order to:
  - a. fully comply with new state laws and district policy;
  - b. revise supervision assignments as needed in response to the identification of bullying and harassment occurrences;
  - c. assist in creating a more secure environment for our students;
  - d. become useful as a tool in addressing bullying and harassment as part of the implementation of an advisor/advisee program;
  - e. inform district administration of processes, resources, timelines, and data collected that relates to bullying & harassment.
10. The QRMHS Assistant Principal will organize and facilitate the incoming 7<sup>th</sup> grade "Step Up" program that introduces 6<sup>th</sup> grade students from Warren Community and West Brookfield Elementary Schools to QRMHS in order to:
  - a. attract and retain students considering school choice to neighboring districts;

- b. educate 6<sup>th</sup> grade students and parents on the academic, athletic, and extra-curricular benefits of remaining in district at Quaboag Regional;
  - c. assist in alleviating anxiety for incoming 7<sup>th</sup> graders by allowing them opportunity to visit Quaboag with their peers and teachers during the school day to see a realistic snapshot of life at QRMHS;
  - d. identifying any areas of concern that potential 7<sup>th</sup> grade students and/or parents might have regarding QRMHS and its offerings;
  - e. create a culture where students and parents from each elementary school feel welcome and comfortable at QRMHS to instill a sense of ownership and pride even before attending.
- 11. To improve WCES MCAS scores, the WCES Principal will review and evaluate assessment data (MCAS, Dibels, Grade, G-made) with the faculty, the School Advisory Council, Bay State Reading Institute data teams and the Math Vertical Team. The findings of these reviews will be used to determine strengths and weaknesses in particular cohorts and of particular skills. Appropriate interventions will be put into place based on assessments results, students' progress will be monitored and interventions will be modified as needed.
- 12. To focus on common professional practices, the WCES Principal will conduct walkthroughs, or "educational rounds", with teams of teachers at least eight times throughout the school year. Each round will focus on one area of instruction; teachers will be aware of the topic prior to the rounds. The rounds will occur prior to monthly faculty meetings so that results can be discussed at the following faculty meeting. Records will be kept on skills observed, teachers observed, teachers observing, and feedback.
- 13. To promote students' self control and conflict resolution skills, the WCES Principal will oversee the use and implementation of the Second Step program through a schedule of monthly lessons to be taught in each classroom throughout the year. The principal will review teachers' schedules and visit classrooms to insure the lessons are being taught and will utilize the problem solving strategies in the program to when dealing with discipline programs in the office.
- 14. To promote citizenship at WCES, the principal will interact with every child by having each student take a turn assisting in Morning Announcements throughout the 2010-11 school year.
- 15. The Director of Student Support Services will:
  - a. maintain visibility, and present as an approachable, hands on administrator, by attending all weekly special education meetings at Warren Community Elementary School on Tuesday mornings, at West Brookfield Elementary on Thursday mornings, and monthly at the Middle/High School;

- b. Agendas and minutes will be distributed for each meeting;
  - c. Visit classrooms, meet individually with staff to address issues and provide consultation and feedback to special education teachers and paraprofessionals while in each building.
- 16. In an effort to improve student learning for special education students, the Director of Student Support Services will facilitate compliance activities for the CPR audit, meeting all time lines and achieving full compliance with each corrective action.
- 17. The WBES Principal will create Instructional Study Groups consisting of four teachers from two different grade levels will meet bimonthly to review and analyze MCAS data, core curriculum materials, and common core standards for mathematics. Using this information the teams will determine benchmarks that our students need to achieve by the end of the year, they will work backwards and develop common formative assessments to assess our students along the way. The assessments will help drive instruction to match the needs of the students. 2011 MCAS results will be analyzed to determine effectiveness of this project. The work will be completed by the end of the year.
- 18. The WBES Principal will implement learning rounds, to be conducted once a month with a different guiding question to drive the inquiry. Teacher teams will develop the question, then participate in learning rounds, and finally share out their findings with the entire staff. The staff will participate in guided discussions to determine changes or improvements that will be adopted. The work will be ongoing and we will complete a self-assessment mid -year to determine effectiveness.
- 19. The WBES Principal will hold four informational nights for parents. The goal of the evenings will be to build collaborative relationships with parents and families and to educate them on how to help their students at home. The focus of the informational nights will be how to help with homework, creating good study habits, preparing for standardized testing, and how to build a partnership with your child's school and teacher. The effectiveness of these programs will be assessed with sign in sheets, feedback sheets, and by tracking student's homework completion.

### **III. Student Support Programs and Services**

#### **The QRSD Guidance Vertical Team will:**

- 1. The Guidance Vertical Team will design and/or compile questions for a School Climate Survey based on bullying per the DESE Bullying Prevention and Intervention Plan.

2. The Guidance Vertical Team will, in cooperation with the administrative team, create and implement a bullying prevention and intervention plan to be put in place by the end of December 2010.
3. We will have an end of the year meeting with all guidance and adjustment counselors in the district to discuss academic, social and emotional needs of students in transitioning grade levels.

**The QRSD Special Education Vertical Team will:**

It is the overarching goal of the Special Education Vertical Team to improve AYP for all Special Education students. More specifically, there are seven subgroups; each subgroup has an individual goal:

1. The *Alternative Special Education Subgroup* will create a handbook for students & parents entering the Alternative education program.
2. The *Autism Special Education Subgroup* will finalize a parent brochure & teachers guide for Autism.
3. The *Communication Special Education Subgroup* will address communication by creating a vocabulary list related to MCAS questions as it impacts students on IEP's with respect to testing.
4. The *Journey Program Special Education Subgroup* will explore, choose, and pilot a Life Skills curriculum for the Journey programs.
5. The *Pre-school Special Education Subgroup* will work to obtain NAEYC re-accreditation (WCES) and accreditation (WBES).
6. The *Read 180 Special Education Subgroup* will evaluate curriculum and assess student needs, using MCAS data, as related to the READ 180 program.
7. The *Severe Reading Special Education Subgroup* will create a common intervention program that is consistent across grade levels and schools.

**The QRSD Food Service Department will:**

1. The QRSD Food Service Department will promote and develop optimal school nutrition programs and services for all our students and provide outreach to the community that will support food security and wellness in our community. This will be accomplished through USDA School Meals Programs SNAP, WIC, grants, and other food agency programs.
2. The QRSD Food Service Department will improve upon and create a new district wide school nutrition staff evaluation program inclusive of professional

development and performance/competency based education portfolios for all levels.

3. The QRSD Food Service Department will participate in the development of our district wide curriculum vertical team for Wellness for the purpose of improving the Quaboag Regional School District curriculum, programs and services.
4. The QRSD Food Service Department will oversee all operations of School Nutrition Programs for Quaboag Regional School District which will include monitoring for sound financial practices and accountability, facilities maintenance, and through seeking alternative ways to enhance programs, raise revenue and decrease expenses.

#### **IV. Leadership and Governance**

##### **The Quaboag Regional School Committee will:**

1. The Quaboag Regional School Committee will make a concerted effort to celebrate student success at school committee meetings.
2. The Quaboag Regional School Committee will re-establish the cable cast of regular school committee meetings in Warren and West Brookfield.
3. The Quaboag Regional School Committee will continue to review and update school committee policies which provide guidance in the operations of the district.
4. The Quaboag Regional School Committee will remain committed to sound fiscal policy and practices.
5. The Quaboag Regional School Committee will maintain facilities and grounds.
6. The Quaboag Regional School Committee will open communication with staff and the respective communities it serves.
7. The Quaboag Regional School Committee will examine educational practices as they relate to current research and provide appropriate professional development for educational staff.
8. The Quaboag Regional School Committee will review the school choice program for both incoming/outgoing students.
9. The Quaboag Regional School Committee will streamline process for disseminating information to school committee.
10. The Quaboag Regional School Committee will brainstorm ideas to market and promote the strengths of the Quaboag Regional School District.

## **V. Business and Financial Management**

### **The District Financial and Operations Team will:**

#### ***Financial:***

1. The QRSD Financial and Operations Team will adhere to an Annual Fiscal Checklist; a list of monthly and quarterly activities which are key to the management of the district's financial operation which were created during the 2009-2010 school year. This checklist will be reviewed at every budget subcommittee meeting.
2. The QRSD Financial and Operations Team will develop annual budget with complete openness and with inclusion of all stakeholders.
3. The QRSD Financial and Operations Team will aggressively manage state and federal grants; ensure monthly fiscal balance, prompt close out, timely DESE reporting.
4. The QRSD Financial and Operations Team will solicit competitive pricing on major contracts; PCL insurance, copiers, trash hauling, trade services.
5. The QRSD Financial and Operations Team will work with the District Treasurer to update and fine tune Student Activity procedures at all three schools.

#### ***Operations***

1. The QRSD Financial and Operations Team will ensure that all Budgetsense users have proper training and the necessary tools to leverage the full functionality of the system.
2. The QRSD Financial and Operations Team will continue to assess and improve general office workflow processes within and between schools and district-wide operations.
3. The technology coordinator will implement a barcode inventory system to track equipment district wide.
4. The technology coordinator will create a modern technology infrastructure with wireless and IP based building technology to provide remote access and administration thereby increasing efficiency and productivity.
5. The technology coordinator will promote and implement 21st century technology, such as Google Apps and Moodle, in the classroom to promote 21st century skills for students.



6. The technology coordinator will provide fast response times to technology in the district through methods such as a ticket support system which tracks users and requests.
7. The technology coordinator will reduce technology costs district wide by implementing a district area wide area network (WAN) on a Microsoft Network while eliminating Novell.

### ***Facilities***

1. The QRSD Financial and Operations Team will work with the Building Committee to oversee the school improvement bond for WCES, and to spearhead the solar panel project.
2. The QRSD Financial and Operations Team will reinforce custodial cleaning standards to ensure school environments are healthy and safe for students, staff, and community members.
3. The QRSD Financial and Operations Team will update district facilities and preventative maintenance plans and analyze options to outsource facilities management and custodial cleaning.
4. The QRSD Financial and Operations Team will update multi-year Capital Improvement Plans and notify the School Committee and Town Selectman of both short-term and long-term needs.
5. The QRSD Financial and Operations Team will schedule annual inspections by the local governing bodies (Fire Departments, Boards of Health, and Building Inspectors).
6. The QRSD Financial and Operations Team will develop district-wide grounds management plan and identify the resources (internal and external) to manage it.
7. The QRSD Financial and Operations Team will complete the relocation of the District Office to QRMHS.

#### **d. Attachment D: Applicant Group Résumés – under separate cover**

### **Addendum Budget**

The superintendent and business and finance manager will work closely with the design/planning team to develop a budget model. Building the FY 2011 budget was extremely challenging due to a continual decline in state revenues. We will ensure that the Quaboag Innovation Middle School is at least level funded and we will review the discretionary budget to look for areas of flexibility. We will also seek additional funds through federal grants, competitive grants from foundations, and fundraising. Finally, we will establish 501 (c) (3) status for the Quaboag Innovation Middle School in order to increase our eligibility for funding. In addition, we will build a network of alumni and professionals in STEM professions to find creative solutions that will allow for meeting and exceeding the vision and mission of Quaboag Innovation Middle School.

The following sources for funding technology initiatives were adapted from *Technology Funding: A How-To Guide* by Ken Brown, *How They Did It* by Mary Axelson, and *Beyond the Startup* by Leslie Wilson and Rick Peterson.

### **Federal Funding opportunities**

**Title II Part D of the Elementary and Secondary Education Act, Enhancing Education Through Technology** which was established with the goal of improving student achievement through the use of technology in elementary and secondary schools as well as encouraging technological literacy and establishing research-based instructional methods that can be widely implemented.

**Title II, Part A, Improving Teacher Quality State Grants**, passed to the states and then on to local education agencies (LEAs) through formula sub-grants aimed at increasing academic achievement by improving teacher and principal quality.

**Title V, Innovative Programs**, another state-administered formula grant program that provides funding for innovative assistance programs that are: (1) tied to promoting challenging academic achievement standards; (2) used to improve student academic achievement; and (3) part of an overall education reform strategy.

**Title VI, Small, Rural School Achievement Program**, which provides financial assistance to rural districts

### **Reallocation of resources**

With Internet-enabled mobile computers in the hands of students, schools have access to a wide variety of resources that allow them to rethink their investment in print resources – a major component of the instructional budget in years past. Research tools such as [Wikipedia](#) offer a free alternative to print encyclopedias, while [Project Gutenberg](#) with its 17,000 free online texts, the [Online Books Page](#) featuring 25,000 works of English literature, and the [MarcoPolo/Thinkfinity](#) free collection of digital content resources all raise questions about the

need to budget for expensive, static textbooks.

A variety of other curriculum materials are available to today's one-to-one schools with subscription fees that are considerably lower than the cost of print textbooks. Shifting to digital materials can result in dramatic savings while offering a more flexible learning environment that is easily upgraded and refreshed over time.

### **Budget Tools**

The One-to-One Institute, created the [Dynamic Technology Planning](#) program. This projection tool facilitates a district's development of their technology vision, short and long term goals and strategies for funding. The district's key leaders examine current technology funding and return on investment and reach consensus on goals related to education technology.

Finally, leasing, lease/purchasing, installment purchasing and unlimited tax general obligation borrowing may be used in order to purchase devices.

## Quaboag Innovation STEM Early College High School – preliminary budget

<u>Item</u>	<u>FTE</u>	<u>Cost</u>
<b><u>Administration</u></b>		
Director	TBD	TBD – planning team decision
Total Salaries	TBD	TBD- planning team decision
Fringe		
Health and Welfare		
<b><u>Total Personnel</u></b>	<b><u>TBD</u></b>	<b><u>TBD</u></b>
Supplies		\$ 2000
Office		
<b><u>Equipment-</u></b> Use district equipment		
<b><u>Transportation</u></b>		
Faculty 4 faculty X 2 days X 36 weeks		\$ 2,800
<b><u>Contractual</u></b>		
Faculty and tuition \$9195 per 4 credit course 15 students or less		\$ 36,780
Less HCC Community Service grant		\$ - 4,416
<b><u>Total Contractual</u></b>		<b><u>\$ 32,364</u></b>
<b><u>Other</u></b>		
Printing		\$ 200
Advertising		\$ 4000
Postage		\$ 1300
<b><u>Total other Expenses</u></b>		<b><u>\$ 5,500</u></b>
Grand Total Expenses		\$ 42,664
Student Allocation		

## VII. End Notes

---

<sup>1</sup><http://www.gatesfoundation.org/college-ready-education/Pages/stem-education.aspx>

<sup>2</sup><http://www.gatesfoundation.org/speeches-commentary/Pages/bill-gates-2010-ccsso.aspx>

<sup>3</sup><http://www.mass.gov/?pageID=gov3subtopic&L=5&L0=Home&L1=Our+Team&L2=Lieutenant+Governor+Timothy+P.+Murray&L3=Councils%2c+Cabinets%2c+and+Commissions&L4=Governor's+Science%2c+Technology%2c+Engineering%2c+and+Math+Advisory+Council&sid=Agov3>

<sup>4</sup> <http://www.mass.gov/Agov3/docs/MA%20STEM%20Plan%209%2028%2010.pdf>

<sup>5</sup> Juliann M. Kaftan, Gayle A. Buck, & Alysa Haack, *Using Formative Assessments to Individualize Instruction and Promote Learning*. *Middle School Journal*, March 2006, Vol. 37, Number 4. Pages 44-49.

<sup>6</sup> [\*When Failure is Not an Option: Designing Competency-Based Pathways for Next Generation Learners\*](#) was released December 22, 2010 by the International Association for K-12 Online Learning (iNACOL).